

GROUND WATER DISCHARGE PERMIT RENEWAL AND MODIFICATION
Facility name, DP-#

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this Discharge Permit Renewal and Modification (Discharge Permit), DP-#, to Responsible Party (permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 NMAC.

NMED's purpose in issuing this Discharge Permit, and in imposing the requirements and conditions specified herein, is to control the discharge of water contaminants from the Facility Name (facility) into ground and surface water, so as to protect ground and surface water for present and potential future use as domestic and agricultural water supply and other uses and protect public health. In issuing this Discharge Permit, NMED has determined that the requirements of Subsection C of 20.6.2.3109 NMAC have been met.

The activities which produce the discharge, the location of the discharge, and the quantity, quality and flow characteristics of the discharge are briefly described as follows:

Up to # gallons per day (gpd) of wastewater is (Describe the discharge flow, treatment and disposal). IF modification, THEN The modification consists of (Describe modification changes). The discharge contains water contaminants or toxic pollutants which may be elevated above the standards of Section 20.6.2.3103 NMAC. The facility is located at physical address, [approximately # miles direction of] closest city/town, in Sections Section #s, Township, Range, county name County. Ground water most likely to be affected is at a depth of approximately depth-to-water feet and has a total dissolved solids concentration of approximately TDS value milligrams per liter.

[Use this paragraph for new permits.]

The permittee's application consists of the materials submitted by [the permittee OR Name of Submitter on behalf of the permittee] dated date app received [and additional information received on DATE]. The discharge shall be managed in accordance with all conditions and requirements of this Discharge Permit.

[Use this paragraph for renewals/modifications.]

The original Discharge Permit was issued on Original Approval and subsequently renewed and/or modified on dates. The permittee's application consists of the materials submitted by [the permittee OR Name of Submitter on behalf of the permittee] dated date app received [and additional information received on DATE]. The discharge shall be managed in accordance with all conditions and requirements of this Discharge Permit.

Pursuant to Section 20.6.2.3109 NMAC, NMED reserves the right to require a Discharge Permit Modification in the event NMED determines that the requirements of 20.6.2 NMAC are being or may be violated or the standards of Section 20.6.2.3103 NMAC are being or may be violated. This may include a determination that structural controls and/or management practices approved under this Discharge Permit are not protective of ground water quality, and that more stringent

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requirements to protect and/or remediate ground water quality may be required by NMED. These requirements may include: [describe as appropriate: lining/relining lagoons; expanding land application areas; changing waste management practices; expanding monitoring requirements; installing an advanced treatment system; and/or implementing abatement of water pollution].

Issuance of this Discharge Permit does not relieve the permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

The following abbreviations may be used in this Discharge Permit:

Abbreviation	Explanation	Abbreviation	Explanation
BOD ₅	biochemical oxygen demand (5-day)	NTU	nephelometric turbidity units
CFR	Code of Federal Regulations	Org	organisms
Cl	chloride	TDS	total dissolved solids
LADS	land application data sheet(s)	TKN	total Kjeldahl nitrogen
mg/L	milligrams per liter	total nitrogen	TKN+NO ₃ -N
mL	milliliters	TRC	Total Residual Chlorine
NMAC	New Mexico Administrative Code	TSS	total suspended solids
NMED	New Mexico Environment Department	WQA	New Mexico Water Quality Act
NMSA	New Mexico Statutes Annotated	WQCC	Water Quality Control Commission
NO ₃ -N	nitrate-nitrogen		

II. FINDINGS

In issuing this Discharge Permit, NMED finds:

1. The permittee is discharging effluent or leachate from the facility so that such effluent or leachate may move directly or indirectly into ground water within the meaning of Section 20.6.2.3104 NMAC.
2. The permittee is discharging effluent or leachate from the facility so that such effluent or leachate may move into ground water of the State of New Mexico which has an existing concentration of 10,000 milligrams per liter or less of total dissolved solids within the meaning of Subsection A of 20.6.2.3101 NMAC.
3. The discharge from the facility is not subject to any of the exemptions of Section 20.6.2.3105 NMAC.

III. CONDITIONS

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The following conditions shall be complied with by the permittee and are enforceable by NMED. The permittee is authorized to discharge water contaminants subject to the following conditions:

OPERATIONAL PLAN

#	Usage	Terms and Conditions
1.	Use for all facilities	The permittee shall implement the following operational plan to ensure compliance with Title 20, Chapter 6, Parts 1 and 2 NMAC. [20.6.2.3106.C NMAC, 20.6.2.3107 NMAC]
2.	Use for all facilities	The permittee shall operate in a manner such that standards and requirements of Sections 20.6.2.3101 and 20.6.2.3103 NMAC are not violated. [20.6.2.3101 NMAC, 20.6.2.3103 NMAC]
3.	ENTRY Use for all facilities	The permittee is authorized to discharge up to [#] gpd of wastewater from the milking parlor [and hospital barn] to a concrete sump and pump it through a solids separator [describe if screen or passive separator] to a [clay-/synthetically] lined [combination wastewater and stormwater] lagoon for storage [OR disposal by evaporation]. Wastewater is land applied by [flood/center pivot/sprinkler] irrigation to up to [#] acres of irrigated cropland under cultivation. [20.6.2.3104 NMAC]
4.	Use for all new facilities	Prior to discharging from the facility, the permittee shall give written and verbal notification to NMED stating the date the discharge is to commence. [20.6.2.3109.H NMAC]
5.	Use for all new facilities if water rights not submitted	Prior to discharging from the facility, the permittee shall submit documentation of irrigation water rights, from the Office of the State Engineer, for all fields within the land application area. The facility must demonstrate adequate irrigation water is available to produce and harvest the crops necessary for the removal of nitrogen applied from dairy wastes. [20.6.2.3109 NMAC]
6.	ENTRY Use for all facilities with existing lagoons, but no separator	Within 90 days of the effective date of this Discharge Permit (by DATE), the permittee shall install a manure solids separator for the purpose of separating manure solids from the parlor wastewater before being discharged to the [clay-/synthetically] lined lagoon. Solids shall be removed from the manure solids separator as needed, in order to maintain proper solids removal. Confirmation of solids separator installation and location, including photographic documentation, shall be submitted to NMED within 180 days of the effective date of this Discharge Permit (by DATE). [20.6.2.3109 NMAC]
7.	Use for all	The permittee shall remove or land apply manure solids and composted

	facilities that have the option to land apply manure	material from the facility in a manner and at a frequency necessary to prevent the contamination of ground water. Management practices for manure and composted material stored at the facility prior to removal or land application shall minimize generation and infiltration of leachate by diverting stormwater run-on and run-off and by preventing the ponding of water within areas used for manure and compost stockpiling. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]
8.	ENTRY Use for all facilities that are not authorized to land apply manure or do not have land application	The permittee shall remove all manure solids and composted material from the facility in a manner and at a frequency necessary to prevent the contamination of ground water. <i>[If no LAA delete next sentence]</i> Manure solids or composted material shall not be applied to fields in the land application area. Management practices for manure and composted material stored at the facility prior to removal shall minimize generation and infiltration of leachate by diverting stormwater run-on and run-off and by preventing the ponding of water within areas used for manure and compost stockpiling. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]
9.	ENTRY P&S for new impoundment and/or lagoon with synthetic liner	Within [90] days of the effective date of this Discharge Permit (by DATE), the permittee shall submit, for NMED approval, construction plans and specifications, and supporting design calculations for [#] synthetically lined [choose one: stormwater impoundment[s], lagoon[s] for the storage of wastewater, evaporative lagoon[s] for the storage and disposal of wastewater by evaporation, combination lagoon[s] for the storage of wastewater and stormwater, combination evaporative lagoon[s] for the disposal of wastewater and stormwater], certified by a licensed New Mexico professional engineer. The plans shall demonstrate that the [stormwater impoundment[s] OR lagoon[s]] [is OR are] designed at minimum to contain [choose one: run-off and direct precipitation from a 25-year, 24-hour rainfall event at all times. The permittee shall contain runoff from the corrals and other applicable areas at the facility (i.e., calf pens, alleys, feed storage and mixing, etc.); the maximum daily discharge volume allowed by this Discharge Permit for a minimum period of 60 days while maintaining two feet of freeboard at all times, the maximum daily discharge volume for disposal by evaporation while maintaining two feet of freeboard at all times, the maximum daily discharge volume allowed by this Discharge Permit for a minimum period of 60 days, plus stormwater runoff and direct precipitation generated from a 25-year, 24-hour storm event, while maintaining two feet of freeboard at all times, the maximum daily discharge volume allowed by this Discharge Permit, plus stormwater runoff and direct precipitation generated from a 25 year, 24 hour storm event, for disposal by evaporation while maintaining two feet of freeboard at all times.] [20.6.2.3109 NMAC]
10.	ENTRY	[Within [one year] of the effective date of this Discharge Permit (by DATE)]

	Construct new impoundment and/or lagoon with synthetic liner	OR Prior to discharging from the facility], the permittee shall construct [#] synthetically lined [choose one: stormwater impoundment[s] for the purpose of containing stormwater runoff from the corrals and other applicable areas at the facility (i.e., calf pens, alleys, feed storage and mixing, etc.) lagoon[s] for the storage of wastewater, evaporative lagoon[s] for the storage and disposal of wastewater by evaporation, combination lagoon[s] for the storage of wastewater and stormwater, combination evaporative lagoon[s] for the disposal of wastewater and stormwater.] The [stormwater impoundment[s] OR lagoon[s]] shall be constructed in accordance with the [construction plans and specifications submitted with the Discharge Permit application OR approved construction plans and specifications as required by this Discharge Permit] and the attachment titled <i>Ground Water Discharge Permit Conditions for Synthetically Lined Lagoons - Liner Material and Site Preparation</i> , Revision 0.0, May 2007. The permittee shall notify NMED at least five working days prior to [stormwater impoundment OR lagoon] construction to allow NMED personnel to be on-site for inspection. Record drawings and final specifications for the [stormwater impoundment[s] and impoundment liner[s] OR lagoon[s] and lagoon liner[s],] and final lagoon capacity calculations, shall be submitted to NMED within 60 days of liner installation. A licensed New Mexico professional engineer shall certify all record drawings and final specifications for the [stormwater impoundment[s] OR lagoon[s]] and liner[s], as well as final capacity calculations. [20.6.2.3109 NMAC]
11.	ENTRY P&S for installing synthetic liner in the existing wastewater lagoon (60-day storage)	Within [90] days of the effective date of this Discharge Permit (by DATE), the permittee shall submit, for NMED approval, construction plans and specifications, and supporting design calculations, certified by a licensed New Mexico professional engineer, for installing [#] synthetic liner[s] in the existing lagoon[s] or for constructing [#] new synthetically lined lagoon[s] for the storage of wastewater. The plans shall demonstrate that the lagoon[s] is[are] designed to contain the maximum daily discharge volume allowed by this Discharge Permit for a minimum period of 60 days while maintaining two feet of freeboard at all times. [20.6.2.3109 NMAC]
12.	ENTRY Install synthetic liner in the existing wastewater lagoon (60-day storage)	Within [one year] of the effective date of this Discharge Permit (by DATE), the permittee shall install [#] synthetic liner[s] in the existing lagoon[s] or construct [#] new synthetically lined lagoon[s] for the storage of wastewater. The lagoon[s] shall be constructed in accordance with the [construction plans and specifications submitted with the Discharge Permit application OR approved construction plans and specifications as required by this Discharge Permit] and the attachment titled <i>Ground Water Discharge Permit Conditions for Synthetically Lined Lagoons - Liner Material and Site Preparation</i> , Revision 0.0, May 2007. The permittee

		shall notify NMED at least five working days prior to lagoon construction to allow NMED personnel to be on-site for inspection. Record drawings and final specifications for the lagoon[s], lagoon liner[s], and final lagoon capacity calculations shall be submitted to NMED within 60 days of liner installation. A licensed New Mexico professional engineer shall certify all record drawings and final specifications for the lagoon[s] and liner[s], as well as final capacity calculations. [20.6.2.3109 NMAC]
13.	ENTRY Use for all stormwater impoundment s that collect only stormwater (NO wastewater)	The permittee shall divert stormwater from the corrals and other applicable areas at the facility (i.e., calf pens, alleys, feed storage and mixing, etc.) into [#] stormwater impoundment[s] in a manner that minimizes impacts to ground and surface water. The impoundment[s] shall be designed, operated and maintained to contain, at a minimum, run-off and direct precipitation from a 25-year, 24-hour rainfall event. The permittee shall maintain operational pumps on-site at all times for the transfer of stormwater to [the wastewater lagoon [system]] OR [the irrigation system for the land application area]. Stormwater collected in the impoundment[s] shall be pumped to [the wastewater lagoon [system]] OR [the irrigation system for the land application area] as soon as practicable, and in no case more than 14 days after the subject storm event. [20.6.2.3109 NMAC]
14.	ENTRY Use for all combination stormwater/ wastewater lagoons	The permittee shall divert stormwater from the corrals and other applicable areas at the facility (i.e., calf pens, alleys, feed storage and mixing, etc.) into a [synthetically/clay-lined] combination wastewater and stormwater [if evaporative add language to describe] lagoon [system] in a manner that minimizes impacts to ground and surface water. Adequate free capacity shall be maintained in the lined lagoon [system] to contain runoff and direct precipitation from a 25-year, 24-hour rainfall event. [20.6.2.3109 NMAC]
15.	Placeholder	If facility disposes of wastewater by evaporation only, discuss with your supervisor and Ag. Team Leader for custom sampling condition concerning how stormwater is to be managed.
16.	ENTRY Use for renewals or modifications to demonstrate existing lagoon capacity, if needed	Within [180] days of the effective date of this Discharge Permit (by DATE), the permittee shall submit to NMED an up-to-date survey of the existing [clay-/synthetically] lined wastewater lagoon[s] and capacity calculations. The survey and capacity calculations shall be done by a licensed New Mexico professional surveyor. The capacity calculations shall include the storage volume below the two-foot freeboard level. [20.6.2.3109 NMAC]
17.	ENTRY	Within [180] days of the effective date of this Discharge Permit (by

	Use for renewals or modifications to demonstrate existing sw impoundment capacity, if needed	DATE), the permittee shall submit to NMED an up-to-date survey of the stormwater impoundment[s], capacity calculations and calculations for run-off and direct precipitation from a 25-year, 24-hour rainfall event. The survey and capacity calculations shall be done by a New Mexico registered professional surveyor. [20.6.2.3109 NMAC]
18.	ENTRY Use for all facilities with wastewater lagoons	The permittee shall operate and maintain the [clay-/synthetically] lined lagoon [system] for the purpose of [storing and managing OR disposing of] wastewater at the dairy. The permittee shall maintain the capacity of the lagoon [system] to store the maximum daily discharge volume allowed by this Discharge Permit [for a minimum period of 60 days OR for disposal by evaporation] while maintaining two feet of freeboard at all times. In order to maintain the required capacity, solids shall be removed from the lagoon [system] as needed in a manner that is protective of the lagoon liner. [20.6.2.3109 NMAC]
19.	ENTRY Use for all facilities with combination wastewater/stormwater lagoons	The permittee shall operate and maintain the [clay-/synthetically] lined lagoon [system] for the combined purpose of [storing and managing OR disposing of] wastewater and stormwater generated at the dairy. The permittee shall maintain the capacity of the lagoon [system] to store the maximum daily discharge volume allowed by this Discharge Permit [for a minimum period of 60 days], plus stormwater generated from a 25-year, 24-hour storm event, [OR for disposal by evaporation] while maintaining two feet of freeboard at all times. In order to maintain the required capacity, solids shall be removed from the lagoon [system] as needed in a manner that is protective of the lagoon liner. [20.6.2.3109 NMAC]
20.	ENTRY Use for all facilities with wastewater lagoons and/or stormwater impoundment	<p>The wastewater lagoon[s] and stormwater impoundment[s] shall be maintained in such a manner as to avoid conditions which could affect the structural integrity of the lagoon[s], impoundment[s] and/or the associated liner[s]. Such conditions include, but are not limited to:</p> <ul style="list-style-type: none"> • Erosion damage; • Animal activity/damage; • The presence of vegetation such as: aquatic plants, weeds, woody shrubs or trees growing within five feet of the lagoon edge or within the lagoon or impoundment itself; • Evidence of seepage; • Evidence of berm subsidence; and/or • The presence of large pieces or large quantities of debris in the lagoon or impoundment.

		The permittee shall visually inspect the wastewater lagoon[s], stormwater impoundment[s] and surrounding berms on a monthly basis to ensure proper maintenance. Vegetation growing around the lagoon[s] and impoundment[s] shall be routinely controlled in a manner that is protective of liners. Any evidence of damage to the berm of a lagoon or impoundment or to a liner shall be reported to NMED immediately upon discovery. [20.6.2.3107 NMAC]
21.	ENTRY Use only rarely – prefer similar condition in Monitoring Section	Within [90] days of the effective date of this Discharge Permit (by DATE), the permittee shall provide access to all monitoring wells identified in the Discharge Permit for downhole well inspections by NMED personnel. The permittee shall have any existing dedicated pumps removed at least 48 hours prior to NMED inspection to allow adequate settling time of sediment agitated from pump removal. Prior to scheduling pump removal, the permittee shall coordinate the inspection date with NMED. [20.6.2.3107 NMAC]
22.	ENTRY Use for <u>new</u> facilities that have not yet built	Prior to discharging wastewater to any field within the [#]-acre land application area, the permittee shall install the infrastructure necessary to properly transfer, distribute and apply wastewater and/or stormwater to the field(s) that will be actively receiving wastewater. Written confirmation of the land application distribution system installation including the type and locations of the system, the method of backflow prevention employed, and photographic documentation, shall be submitted to NMED prior to discharging to the field(s). [20.6.2.3109 NMAC]
23.	ENTRY Use for facilities with existing infrastructure, if this info has not been submitted with the application	Within 180 days of the effective date of this Discharge Permit (by DATE), the permittee shall submit to NMED documentation of the existing infrastructure necessary to properly transfer, distribute and apply wastewater and/or stormwater to all fields which have received wastewater within the [#]-acre land application area. Written confirmation of the land application distribution system installation shall include the type and locations of the system, the method of backflow prevention employed, and photographic documentation. [20.6.2.3109 NMAC]
24.	ENTRY Use for facilities with extra fields that do not have infrastructure	Prior to the initial discharge of wastewater to any field within the [#]-acre land application area that has not previously received wastewater, the permittee shall install the infrastructure necessary to properly transfer, distribute and apply wastewater and/or stormwater. Written confirmation of the land application distribution system installation including the type and locations of the system, the method of backflow prevention employed, and photographic documentation, shall be submitted to NMED prior to

	installed	discharging to any field. [20.6.2.3109 NMAC]
25.	ENTRY Use for all facilities with land application	The permittee shall apply dairy wastes to up to [#] acres of irrigated cropland. Dairy wastes shall be applied to cropland under cultivation in such a manner that the amount of total nitrogen in the combined applications of wastewater, manure solids, composted material, residual soil nitrogen, stormwater applications, irrigation water and/or commercial fertilizer shall not exceed by more than 25% the amount reasonably expected to be taken up and removed by the harvested crops on an annual basis. Nitrogen content shall not be adjusted to account for volatilization or mineralization processes. Wastewater shall be [[[mixed with irrigation water [in-line OR in a mix tank]] OR applied alternately with irrigation water]]]. All dairy wastes shall be distributed evenly over the entire area of application. Excessive ponding shall be prevented. [20.6.2.3109 NMAC]
26.	NOTE: Condition temporarily removed for more discussion	Crop management plan
27.	Use only at facilities with sprinkler or drip irrigation	The permittee shall [maintain OR install and implement] backflow prevention to protect all wells used in the land application distribution system from contamination by wastewater. [<i>If backflow prevention is already installed, then specify method</i>] Backflow prevention shall be achieved by an air gap method, reduced pressure valve assembly or other method acceptable to NMED. Backflow prevention devices or assemblies shall be tested by a certified backflow assembly tester at the time of installation, repair, or relocation, and at least on an annual schedule thereafter. Inspection and maintenance records for the backflow prevention program shall be kept on-site and available for inspection upon request. [20.6.2.3109 NMAC]
28.	Use only at facilities with flood irrigation or tanker truck application	The permittee shall maintain backflow prevention to protect all wells used in the land application distribution system from contamination by wastewater backflow. Backflow prevention shall be achieved by a total disconnect (physical air gap) between the fresh irrigation water and wastewater delivery systems. Any change that would allow for or result in the commingling of wastewater and fresh irrigation water in the same distribution system shall require additional backflow prevention measures and NMED approval prior to installation and implementation. Inspection and maintenance records for the backflow prevention program shall be kept on-site and available for inspection upon request. [20.6.2.3109 NMAC]

29.	Use for all facilities with concrete lined flood irrigation ditches	The permittee shall visually inspect the concrete-lined ditch system on a monthly basis to ensure proper maintenance. Any damage to the concrete-lined ditches shall be repaired immediately. The permittee shall keep a log of the inspection findings and repairs made. All ditches used to land apply wastewater shall be concrete-lined. [20.6.2.3107 NMAC]
30.	ENTRY Use for all facilities	<p>[Within 180 days of the effective date of this Discharge Permit (by DATE) OR Prior to discharging from the facility], the permittee shall submit to NMED an up-to-date scaled map of the entire facility. The map shall be clear and legible, and drawn to a scale such that all necessary information is plainly shown and identified. The map shall show the scale in feet or metric measure, a graphical scale, a north arrow, and the effective date of the map. Documentation identifying the means used to locate the mapped objects (i.e., GPS, land survey, digital map interpolation, etc.) and the relative accuracy of the data (i.e., +/- XX feet or meters) shall be included with the map.</p> <p>The map shall include the following objects:</p> <ul style="list-style-type: none"> a) Overall dairy facility layout (barns, feed storage areas, pens, etc.); b) Location of sumps; c) Location of manure separators; d) Location of all wastewater storage lagoon(s); e) Location of all stormwater impoundment(s); f) Location of all mix tanks; g) Location and acreage of each field within the land application area; and h) Location of monitoring wells (including permanent designation). <p>The following elements shall also be shown on the map:</p> <ul style="list-style-type: none"> a) Location of meters measuring wastewater discharges to and from lagoons; b) Location of all transfer pump(s); c) Location of all wastewater distribution pipelines; and d) Location of all backflow prevention devices. <p>If these items cannot be directly shown, due to their location inside of existing structures or because they are buried without surface identification, they shall be identified on the map in a schematic format and called out as such.</p> <p>The facility map shall be updated and resubmitted to NMED within 120 days of any additions or changes to the facility layout which includes any of the items listed above. [20.6.2.3106 NMAC. 20.6.2.3109 NMAC]</p>

MONITORING, REPORTING, AND OTHER REQUIREMENTS

#	Usage	Terms and Conditions
31.	Use for all facilities	The permittee shall conduct the monitoring, reporting, and other requirements listed below. [20.6.2.3107 NMAC]
32.	Use for all facilities	<p>METHODOLOGY - Unless otherwise approved in writing by NMED, the permittee shall conduct sampling and analysis in accordance with the most recent edition of the following documents:</p> <ul style="list-style-type: none"> a) American Public Health Association, Standard Methods for the Examination of Water and Wastewater (18th, 19th or current); b) U.S. Environmental Protection Agency, Methods for Chemical Analysis of Water and Waste; c) U.S. Geological Survey, Techniques for Water Resources Investigations of the U.S. Geological Survey; d) American Society for Testing and Materials, Annual Book of ASTM Standards, Part 31. Water; e) U.S. Geological Survey, et al., National Handbook of Recommended Methods for Water Data Acquisition; and/or f) Methods of Soil Analysis: Part 1. Physical and Mineralogical Methods and Part 2. Chemical and Microbiological Properties, American Society of Agronomy. <p>[20.6.2.3107.B NMAC]</p>
33.	Use for all facilities	<p>The permittee shall submit annual monitoring reports to NMED by August 1st of each year. Quarterly monitoring shall be performed during the following quarters:</p> <ul style="list-style-type: none"> • January 1st through March 31st (first quarter); • April 1st through June 30th (second quarter); • July 1st through September 30th (third quarter); and • October 1st through December 31st (fourth quarter). <p>Each annual report shall contain monitoring data and information collected during the third and fourth quarters of the prior calendar year and the first and second quarters of the current calendar year. Monitoring requirements detailed in this Discharge Permit are summarized on the sheet titled <i>Summary of Required Actions, Monitoring and Reporting</i>. [20.6.2.3107 NMAC]</p>
34.	ENTRY Use rarely, only at	<i>Note: if requiring quarterly sampling, then all monitoring conditions throughout the permit need to be changed to reflect this change.</i>

	facilities with poor compliance	<p>The permittee shall submit quarterly monitoring reports to NMED by the 1st of February, May, August, and November of each year. Quarterly monitoring shall be performed during the following quarters and submitted as follows:</p> <ul style="list-style-type: none"> • January 1st through March 31st (first quarter) – due by May 1st; • April 1st through June 30th (second quarter) – due by August 1st; • July 1st through September 30th (third quarter) - due by November 1st; and • October 1st through December 31st (fourth quarter) - due by February 1st. <p>Monitoring requirements detailed in this Discharge Permit are summarized on the sheet titled <i>Summary of Required Actions, Monitoring and Reporting</i>. [20.6.2.3107 NMAC]</p>
35.	ENTRY Use for all new facilities; as needed in renewal/mod	<p>[Within 90] days of the effective date of this Discharge Permit (by DATE) OR Prior to discharging from the facility], the permittee shall install the following totalizing flow meters:</p> <ol style="list-style-type: none"> a) One meter installed on the transfer line from the parlor [and hospital barn] to the lagoon [system], or on an incoming line to the parlor [and hospital barn] that exclusively supplies all water used for washing purposes to measure the volume of wastewater discharged from the milking parlor [and hospital barn] to the storage lagoon [system]; b) One meter installed on the transfer line from the lagoon [system] to the land application area to measure the volume of wastewater discharged from the lagoon [system] to the land application area; and c) <i>[use only if stormwater is pumped directly to the LAA and not the lagoon]</i> One meter installed on the transfer line from the stormwater impoundment directly to the land application area to measure the volume of stormwater discharged from the stormwater impoundment to the land application area. <p>Confirmation of meter installation, type, calibration and locations shall be submitted to NMED [within 180 days of the effective date of this Discharge Permit (by DATE) OR <i>use if new facility</i>: within 60 days of completed installation]. [20.6.2.3109 NMAC]</p>
36.	ENTRY Use for all facilities	<p>The permittee shall measure the monthly volume of wastewater discharged from the milking parlor [and hospital barn [add other sources as appropriate]] to the lagoon [system] using a totalizing flow meter. [If meter already installed, describe location or what it is measuring]. Monthly meter readings including units of measurement, calculations, and monthly discharge volumes for the previous 12-month period shall be submitted to NMED in the annual monitoring report. The flow meter shall be kept</p>

		operational at all times. [20.6.2.3107.A(1) NMAC, 20.6.2.3109.H NMAC]
37.	ENTRY Use for all facilities with land application	The permittee shall measure and record all discharges from the lagoon [system] to each field in the land application area. The volume of each discharge shall be measured using a totalizing flow meter on the transfer line between the lagoon [system] and the land application area. The permittee shall maintain a log showing the date and location of each discharge, meter readings immediately prior to and after each discharge, and the calculated total volume of each discharge. A copy of the log entries including units of measurement for the previous 12-month period shall be submitted to NMED in the annual monitoring report. The discharge volumes shall be used to calculate nitrogen loading on the LADS. The flow meter shall be kept operational at all times. [20.6.2.3107.A(1) NMAC, 20.6.2.3109.H(1) NMAC]
38.	Use only when stormwater is discharged from the sw impoundment directly to the land application area	The permittee shall measure and record all discharges from the stormwater impoundment[s] to each field in the land application area. The volume of each discharge shall be measured using a totalizing flow meter on the transfer line between the stormwater impoundment[s] and the land application area. The permittee shall maintain a log showing the date and location of each discharge, meter readings immediately prior to and after each discharge, and the calculated total volume of each discharge. A copy of the log entries including units of measurement for the previous 12-month period shall be submitted to NMED in the annual monitoring report. The discharge volumes shall be used to calculate nitrogen loading on the LADS. The flow meter shall be kept operational at all times. [20.6.2.3107.A(1) NMAC, 20.6.2.3109.H(1) NMAC]
39.	Use for all facilities whose MWs have not been inspected	<p>Once prior to the expiration date of this Discharge Permit, NMED shall have the option to perform downhole inspections of all monitoring wells identified in this Discharge Permit. NMED shall establish the inspection date and provide at least 60 days notice to the permittee by certified mail. The permittee shall have any existing dedicated pumps removed at least 48 hours prior to NMED inspection to allow adequate settling time of sediment agitated from pump removal.</p> <p>Should a facility not have existing dedicated pumps, but decide to install pumps in any of the monitoring wells, NMED shall be notified at least 90 days prior to pump installation so that a downhole well inspection(s) can be scheduled prior to pump placement. [20.6.2.3107 NMAC]</p>
40.	ENTRY Use of all facilities required to	[Within 30 days of the effective date of this Discharge Permit (by DATE)] OR <i>[use this sentence if installation timing is based on the scheduled construction of a structure:</i> At least 60 days prior to monitoring well installation] OR [Prior to discharging from the facility], the permittee shall

	install new MWs	<p>submit a written monitoring well location proposal for review and approval by NMED. <i>[If multiple monitoring wells are required, include this sentence: The proposal shall designate the locations of all monitoring wells required to be installed by this Discharge Permit.]</i> The proposal shall include, at a minimum, the following information:</p> <ul style="list-style-type: none"> a) A map showing the proposed location of [the OR each] monitoring well from the boundary of the source it is intended to monitor. b) A written description of the specific location proposed for [the OR each] monitoring well including the distance (in feet) and direction of [the OR each] monitoring well from the edge (i.e., toe of lagoon berm) of the source it is intended to monitor. Examples include, 35 feet north-northwest of the northern berm of the synthetically lined wastewater lagoon; 45 feet due south of the leachfield; 30 feet southeast of the land application area 150 degrees from north. c) A statement describing the ground water flow direction beneath the facility and data supporting the determination. <p>[20.6.2.3107 NMAC]</p>
41.	ENTRY Use for all facilities required to install new MWs	<p>[Within [90] days of the effective date of this Discharge Permit (by DATE) OR Prior to discharging from the facility], the permittee shall install [#] new monitoring well[s]. The permittee shall install: (EXAMPLE ONLY – if existing facility use existing number system, adapt to existing or required MWs)</p> <ul style="list-style-type: none"> • One monitoring well (MW-1) hydrologically upgradient of the entire facility; • One monitoring well (MW-2) located 20 to 50 feet hydrologically downgradient of [describe discharge location]; and • One monitoring well (MW-3) 20 to 50 feet hydrologically downgradient of [describe discharge location]. <p>All monitoring well locations shall be approved by NMED prior to installation. The wells shall be completed in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.0, July 2008. Construction and lithologic logs shall be submitted to NMED within [180] days of the effective date of this Discharge Permit (by DATE) OR <i>use if new facility</i>: 60 days of well completion]. [20.6.2.3107 NMAC]</p>
42.	ENTRY Use for facilities with inactive fields that do not have MWs	<p>Prior to discharging wastewater to field[s] LAA-X, LAA-X and LAA-X within the land application area, the permittee shall install # monitoring well[s]. Monitoring well[s] MW-X, MW-X and MW-X shall be located within 20 to 50 feet hydrologically downgradient of field[s] LAA-X, LAA-X and LAA-X, respectively. The monitoring well location[s] shall be approved by NMED prior to installation. The well[s] shall be completed in</p>

		<p>accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.0, July 2008. Construction and lithologic logs shall be submitted to NMED within 60 days of well completion. The monitoring well[s] shall be sampled and the measurements/results reported in accordance with the procedures, schedules, and requirements for ground water monitoring as identified in this Discharge Permit.</p> <p>As an alternative to the installation of monitoring wells downgradient of field[s] LAA-X, LAA-X, and LAA-X and prior to discharging wastewater to these fields, the permittee may submit a proposal for NMED approval to use an existing monitoring well to monitor the potential impacts on ground water quality from wastewater applications to field[s] LAA-X, LAA-X and LAA-X. Well screen length and screen location (relative to the water table) of the existing monitoring well, shall be consistent with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.0, July 2008. Proposals to use an existing monitoring well must provide data from the [monitoring well survey and] quarterly ground water elevation contour maps, as required by this Discharge Permit, which demonstrate that an existing monitoring well is located hydrologically downgradient of field[s] LAA-X, LAA-X and LAA-X. [20.6.2.3107 NMAC]</p>
43.	<p>ENTRY</p> <p>Use for all facilities required to install new MWs; only mention the new wells in this condition</p>	<p>Following installation of the new monitoring wells required by this Discharge Permit, the permittee shall sample ground water in the new wells and analyze the samples for NO₃-N, TKN, Cl, and TDS. The permittee shall sample:</p> <ul style="list-style-type: none"> • MW-1, intended to be located hydrologically upgradient of the entire facility; • MW-2, intended to be located hydrologically downgradient of [discharge location]; and • MW-3, intended to be located hydrologically downgradient of [discharge location]. <p>Ground water sample collection, preservation, transport and analysis shall be performed according to the following procedure:</p> <ol style="list-style-type: none"> a) measure the depth-to-ground water from the top of well casing to the nearest hundredth of a foot; b) purge three well volumes of water from the well prior to sample collection; c) obtain samples from the well for analysis; d) properly prepare, preserve and transport samples; and e) analyze samples in accordance with the methods authorized in this Discharge Permit.

		Depth-to-water measurements, analytical results, including laboratory QA/QC summary report, and a facility layout map showing the location and number of each well shall be submitted to NMED within 60 days of the installation of the monitoring wells. [20.6.2.3107 NMAC]
44.	ENTRY Use for all new facilities; as needed in renewal/mod	[Within [120] days of the effective date of this Discharge Permit (by DATE) OR Prior to discharging from the facility], the permittee shall survey all wells approved by NMED for Discharge Permit monitoring purposes to a U.S. Geological Survey (USGS) or other permanent benchmark. Survey data shall include northing, easting and elevation to the nearest hundredth of a foot or in accordance with the "Minimum Standards for Surveying in New Mexico" (12.8.2 NMAC). A survey elevation shall be established at the top-of-casing, with a permanent marking indicating the point of survey. The survey shall be completed and certified by a licensed New Mexico professional surveyor. Depth-to-water shall be measured to the nearest hundredth of a foot in all surveyed wells, and the data shall be used to develop a map showing the location of all monitoring wells and the direction and gradient of ground water flow at the facility. The data and map of ground water flow direction at the facility shall be submitted to NMED within [180 days for the effective date of this Discharge Permit (by DATE) OR <i>use if new facility</i> : 60 days of survey completion]. [20.6.2.3107 NMAC]
45.	ENTRY Use for all facilities	<p>The permittee shall perform quarterly ground water sampling in [#] monitoring wells and analyze the samples for NO₃-N, TKN, Cl, and TDS. The permittee shall sample: (EXAMPLE ONLY – if existing facility use existing number system)</p> <ul style="list-style-type: none"> • MW-1, intended to be located hydrologically upgradient of the facility (describe location - i.e., 200 feet northwest of facility); • MW-2, intended to be located hydrologically downgradient of [discharge location] (describe location if existing); and • MW-3, intended to be located hydrologically downgradient of [discharge location] (describe location if existing). • MW-# (if installed), intended to be located hydrologically downgradient of field LAA-X. <p>Ground water sample collection, preservation, transport and analysis shall be performed according to the following procedure:</p> <ol style="list-style-type: none"> a) measure the depth-to-ground water from the top of well casing to the nearest hundredth of a foot; b) purge three well volumes of water from the well prior to sample collection; c) obtain samples from the well for analysis:

		<p>d) properly prepare, preserve and transport samples; and</p> <p>e) analyze samples in accordance with the methods authorized in this Discharge Permit.</p> <p>Depth-to-water measurements, analytical results, including laboratory QA/QC summary report, and a facility layout map showing the location and number of each well shall be submitted to NMED in the annual monitoring report. [20.6.2.3107 NMAC]</p>
46.	Use for all facilities with a minimum of three monitoring wells	The permittee shall develop a ground water elevation contour map on a quarterly basis using the monitoring well survey data and quarterly depth-to-water measurements as required by this Discharge Permit. The ground water elevation contour map shall depict the ground water flow direction based on the ground water elevation contours. The data and ground water elevation contour maps shall be submitted to NMED in the annual monitoring report. [20.6.2.3107 NMAC]
47.	ENTRY Use for all facilities with land application	[Prior to discharging from the facility or Within [90] days of the effective date of this Discharge Permit (by DATE)], the permittee shall install an in-line wastewater sampling port on the transfer line from the lagoon [system] to the land application area. Location of the sampling port shall be approved by NMED prior to installation. Confirmation of sampling port installation and location, including photographic documentation, shall be submitted to NMED within [180 days of the effective date of this Discharge Permit (by DATE) OR <i>use if new facility</i> : 30 days of completion]. [20.6.2.3107 NMAC]
48.	ENTRY Use for all facilities with land application	The permittee shall collect a wastewater sample from the in-line sampling port located on the transfer line from the lagoon [system] to the land application area on a quarterly basis. Wastewater samples shall be collected while irrigating, but <u>not</u> during the first or last hour of irrigation. In the event that land application of wastewater does not occur during a particular quarter, a wastewater sample shall be collected during the first wastewater application event of the following quarter. The regularly scheduled quarterly wastewater sample shall also be collected within the quarter, during a later application event. Wastewater samples shall be analyzed for NO ₃ -N, TKN, Cl, and TDS. Analytical results shall be submitted to NMED in the annual monitoring reports. [20.6.2.3107 NMAC]
49.	ENTRY Use for all facilities with evaporative lagoons	The permittee shall analyze wastewater samples collected from the evaporative lagoon [system] on a semi-annual basis for NO ₃ -N, TKN, Cl, and TDS. Analytical results and a map showing the wastewater sampling location shall be submitted to NMED in the annual monitoring report. [20.6.2.3107 NMAC]

50.	Placeholder	If facility has no lagoon in which to collect a wastewater sample, discuss with Ag. Team Leader for custom sampling condition.
51.	Use for all facilities with land application	The permittee shall determine the total nitrogen concentration of each harvested crop grown to verify plant nitrogen removal levels of. A composite sample consisting of 15 sub-samples of plant material shall be taken from each field during the final harvest of each crop grown per year. Samples shall be analyzed for percent total nitrogen and percent dry matter. Analytical reports shall be submitted to NMED in the annual monitoring report. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]
52.	Use for all facilities with land application	Yield documentation and plant and harvest dates of each crop grown shall be submitted to NMED in the annual monitoring report. Yield documentation shall consist of scale-weight tickets or harvest summaries based on scale-weights. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]
53.	Use for all facilities with land application	The permittee shall complete LADS which document the amount of nitrogen from wastewater, stormwater and/or manure solids, applied to each field in the land application area. The LADS shall be completed for each crop grown associated with each field and shall reflect the nitrogen concentration from the quarterly wastewater analyses and the measured discharge volumes for each month. The volume of wastewater and stormwater used in the LADS calculations shall be the volume obtained from meter readings required in this Discharge Permit. The nitrogen concentration of the applied manure solids may be estimated at 13 pounds per ton. The permittee shall also include with the LADS, the crops grown, yields removed and the total nitrogen concentration of the harvested crop for each crop grown. The LADS or a statement that no land application occurred shall be submitted to NMED in the annual monitoring report. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]
54.	Use for all facilities with land application	<p>For the first soil sampling event following the effective date of this Discharge Permit, the permittee shall collect and analyze soil samples from each field and/or management unit in the permitted land application area. Composite soil samples shall be collected between December 1st and May 31st for all fields regardless of whether the field is cropped, remains fallow, or has received wastewater and/or stormwater. One surface composite soil sample (1st-foot) and two sub-surface composite soil samples (2nd and 3rd-foot) shall be collected from each field.</p> <p>Composite soil samples shall be collected according to the following procedure:</p> <ul style="list-style-type: none"> Each surface and sub-surface soil sample shall consist of a single composite of 15 soil cores collected randomly throughout each field. If a field is divided into differing management units (i.e., two

		<p>separate crops on a single pivot), soil samples shall be collected from each management unit. Should a field or management unit consist of considerably different soil textures (i.e., sandy and silty clay); soil samples shall be collected from each soil texture within each field or management unit.</p> <ul style="list-style-type: none"> • Surface soil samples (1st-foot) shall be collected from a depth of 0 to 12 inches. • Each 2nd-foot sub-surface soil sample shall be collected from a depth of 12 to 24 inches. • Each 3rd-foot sub-surface soil sample shall be collected from a depth of 24 to 36 inches. <p>Each surface and sub-surface composite sample shall be analyzed for:</p> <ul style="list-style-type: none"> • pH, electrical conductivity (EC), TKN, NO₃-N, Cl, organic matter (OM), potassium (K), phosphorus (P), sodium (Na), calcium (Ca), magnesium (Mg), bicarbonate (HCO₃), sulfate (SO₄), soil texture and determination of the sodium adsorption ratio (SAR). <p>Soil samples shall be analyzed according to the following methods:</p> <ul style="list-style-type: none"> • Soil pH, EC, Na, Ca, Mg and SO₄ shall be analyzed using a saturated paste extract, as described in Methods of Soil Analysis: Part 2, Chemical and Microbiological Properties, Agronomy Monograph no.9 (2nd edition), pp 167-179, American Society of Agronomy. • Soil P shall be analyzed using the Olsen sodium bicarbonate method, as described in Methods of Soil Analysis: Part 2, Chemical and Microbiological Properties, Agronomy Monograph no.9 (2nd edition), pp 421-422, American Society of Agronomy. • Soil NO₃-N shall be analyzed by a 2 molar KCl extract, as described in Methods of Soil Analysis: Part 2, Chemical and Microbiological Properties, Agronomy Monograph no.9 (2nd edition), pp 643-698, American Society of Agronomy. <p>The analytical results and a map showing the fields and/or management units as well as the sampling locations within each field/management unit shall be submitted to NMED in the annual monitoring report due by August 1, YEAR. [20.6.2.3107 NMAC]</p>
55.	Use for all facilities with land application	<p>Following the initial soil sampling required by this Discharge Permit, the permittee shall, on an annual basis, collect and analyze soil samples from each field and/or management unit within the permitted land application area that has received or is actively receiving wastewater and/or stormwater during the term of this Discharge Permit. Additionally, for those fields which have never before received wastewater, soil samples shall be</p>

		<p>collected immediately prior to initial wastewater application and annually thereafter for the term of this Discharge Permit. Once a field has received wastewater it shall be sampled annually regardless of whether the field is cropped, remains fallow, or has recently received wastewater and/or stormwater. Each surface composite soil sample (1st-foot) and sub-surface composite soil sample (2nd and 3rd-foot) shall be collected in accordance with the soil sampling procedures provided in the preceding permit condition and analyzed for the constituents listed below. Composite soil samples shall be collected between December 1st and May 31st.</p> <p>Surface (1st-foot) samples shall be analyzed for:</p> <ul style="list-style-type: none"> • pH, EC, NO₃-N, Cl, OM, K, P, Na, Ca, Mg, and determination of the SAR. <p>Sub-surface (2nd and 3rd-foot) samples shall be analyzed for:</p> <ul style="list-style-type: none"> • EC, NO₃-N, and Cl <p>Soil samples shall be analyzed in accordance with the methods as required by this Discharge Permit.</p> <p>The analytical results and a map showing the fields and/or management units as well as the sampling locations within each field/management unit shall be submitted to NMED in the annual monitoring report. [20.6.2.3107 NMAC]</p>
56.	Use rarely: only in cases where overloading requires deep subsurface investigation	<p>The permittee shall perform annual deep soil nitrogen sampling in each field of the land application area. The permittee shall collect composite soil samples at depths of 2, 4, 6, 8 and 10 feet from three separate soil cores. Composite samples for each depth shall be assembled from the three cores and analyzed for NO₃-N and TKN. Soil NO₃-N shall be analyzed by a 2 molar KCl extract, as described in Methods of Soil Analysis: Part 2, Chemical and Microbiological Properties, Agronomy Monograph no.9 (2nd edition), pp 643-698, American Society of Agronomy. The analytical results and a map showing sampling locations within the fields shall be submitted to NMED in the annual monitoring report. [20.6.2.3107 NMAC]</p>
57.	Use for all facilities with land application	<p>The permittee shall keep a log of all additional fertilizer applied to each field in the land application area. The log shall contain the date of fertilizer application, the type and fertilizer analysis, and the amount of fertilizer applied (lbs/ac) to each field. A copy of the log entries for the previous 12-month period shall be submitted to NMED in the annual monitoring report. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]</p>

ADDITIONAL STUDIES or ABATEMENT PLAN

#	Usage	Terms and Conditions
58.	ENTRY Use for additional studies or abatement plan	[Describe any additional studies such as determination of GW flow direction, determination of background water quality, etc., OR Abatement plan]. [20.6.2.3107.A NMAC]

CONTINGENCY PLAN

#	Usage	Terms and Conditions
59.	Use for all facilities	<p>In the event that ground water monitoring indicates that one or more of the ground water standards of Section 20.6.2.3103 NMAC are violated during the term of this Discharge Permit, upon closure of the facility or during post-closure monitoring, the permittee shall:</p> <ul style="list-style-type: none"> a) Collect a second sample from the monitoring well(s) within 30 days of the initial sample analysis date to verify the initial results. b) Submit the analytical results for both the initial and second ground water samples to NMED within 30 days of the analysis date of the second ground water sample. <p>In the event that analytical results of the second ground water sample verify the exceedance of one or more of the ground water standards of Section 20.6.2.3103 NMAC, within 60 days of the second sample analysis date the permittee shall submit a corrective action plan to NMED and implement the plan upon NMED approval. The corrective action plan shall propose measures to mitigate damage from the discharge including, at a minimum, source control measures and an implementation schedule. The permittee may be required to abate water pollution pursuant to Sections 20.6.2.4000 through 20.6.2.4115 NMAC, if the corrective action plan will not result in compliance with the standards and requirements set forth in Section 20.6.2.4103 NMAC within 180 days of confirmed ground water contamination. [20.6.2.1203 NMAC, 20.6.2.4105.A(8) NMAC]</p>
60.	ENTRY Use for all facilities with clay-lined wastewater lagoons.	In the event that analytical results of ground water sampling from the monitoring well (MW[#]) located hydrologically downgradient of the clay-lined lagoon[s] verify the exceedance of one or more of the ground water standards of Section 20.6.2.3103 NMAC, the permittee shall within 90 days of the date of verification submit for NMED approval, construction plans and specifications, and supporting design calculations for a synthetically lined [choose one: lagoon(s) for the storage of

	<p>This condition to be used in conjunction with the condition listed directly below.</p>	<p>wastewater, evaporative lagoon(s) for the storage and disposal of wastewater by evaporation, combination lagoon(s) for the storage of wastewater and stormwater, combination evaporative lagoons(s) for the disposal of wastewater and stormwater] certified by a licensed New Mexico professional engineer. The plans shall demonstrate that the lagoon(s) [is OR are] designed at a minimum to contain [choose one: the maximum daily discharge volume allowed by this Discharge Permit for a minimum period of 60 days while maintaining two feet of freeboard at all times, the maximum daily discharge volume for disposal by evaporation while maintaining two feet of freeboard at all times, the maximum daily discharge volume allowed by this Discharge Permit for a minimum period of 60 days, plus stormwater runoff and direct precipitation generated from a 25-year, 24-hour storm event, while maintaining two feet of freeboard at all times, the maximum daily discharge volume allowed by this Discharge Permit, plus stormwater runoff and direct precipitation generated from a 25 year, 24-hour storm event, for disposal by evaporation while maintaining two feet of freeboard at all times.] [20.6.2.3109 NMAC]</p>
61.	<p>ENTRY Use for all facilities with clay-lined wastewater lagoons.</p> <p>This condition to be used in conjunction with the condition listed directly above.</p>	<p>Within one year from the date of verification of the exceedance of a ground water standard(s) of Section 20.6.2.3103 NMAC in MW[#], the permittee shall install a synthetically lined lagoon(s) to replace the existing clay-lined lagoon[s]. The lagoon(s) shall be constructed in accordance with the approved construction plans and specifications as required by the contingency plan in this Discharge Permit] and the attachment titled <i>Ground Water Discharge Permit Conditions for Synthetically Lined Lagoons - Liner Material and Site Preparation</i>, Revision 0.0, May 2007. The permittee shall notify NMED at least five working days prior to lagoon construction to allow NMED personnel to be on-site for inspection. Record drawings and final specifications for the lagoon(s) and lagoon liner(s), and final lagoon capacity calculations, shall be submitted to NMED within 60 days of liner installation. A licensed New Mexico professional engineer shall certify all record drawings and final specifications for the lagoon(s) and liner(s), as well as final capacity calculations. [20.6.2.3109 NMAC]</p>
62.	<p>ENTRY Use for all facilities with unlined or clay-lined stormwater impoundments.</p> <p>This condition</p>	<p>In the event that analytical results of ground water sampling from the monitoring well (MW[#]) located hydrologically downgradient of the stormwater impoundment[s] verify the exceedance of one or more of the ground water standards of Section 20.6.2.3103 NMAC, the permittee shall within 90 days of the date of verification submit for NMED approval, construction plans and specifications, and supporting design calculations for a synthetically lined [choose one: stormwater impoundment(s) for the collection and management of stormwater runoff, evaporative stormwater impoundment(s) for the collection and disposal of stormwater runoff]</p>

	to be used in conjunction with the condition listed directly below.	certified by a licensed New Mexico professional engineer. The plans shall demonstrate that the [stormwater impoundment(s) [is OR are] designed at a minimum to contain [choose one: stormwater runoff and direct precipitation generated from a 25-year, 24-hour storm event, stormwater runoff and direct precipitation generated from a 25-year, 24-hour storm event, for disposal by evaporation while]. [20.6.2.3109 NMAC]
63.	<p>ENTRY Use for all facilities with unlined or clay-lined stormwater impoundments.</p> <p>This condition to be used in conjunction with the condition listed directly above.</p>	<p>Within one year from the date of verification of the exceedance of a ground water standard(s) of Section 20.6.2.3103 NMAC in MW[#], the permittee shall install a synthetically lined stormwater impoundment(s) to replace the existing stormwater impoundment[s]. The stormwater impoundment(s) shall be constructed in accordance with the approved construction plans and specifications as required by the contingency plan in this Discharge Permit] and the attachment titled <i>Ground Water Discharge Permit Conditions for Synthetically Lined Lagoons - Liner Material and Site Preparation</i>, Revision 0.0, May 2007. The permittee shall notify NMED at least five working days prior to stormwater impoundment construction to allow NMED personnel to be on-site for inspection. Record drawings and final specifications for the stormwater impoundment(s) and impoundment liner(s), and final capacity calculations, shall be submitted to NMED within 60 days of liner installation. A licensed New Mexico professional engineer shall certify all record drawings and final specifications for the stormwater impoundment(s) and liner(s), as well as final capacity calculations. [20.6.2.3109 NMAC]</p>
64.	<p>ENTRY Use if survey and capacity determination is required for existing storage lagoon (60 day capacity)</p>	<p>In the event that the survey of the existing [clay-/synthetically] lined wastewater lagoon[s] OR [system]] and capacity calculations as required by this Discharge Permit indicate that the wastewater lagoon[s] OR [system]] is not capable of storing the maximum daily discharge volume allowed by this Discharge Permit for a minimum period of 60 days while maintaining two feet of freeboard at all times, the permittee shall submit a corrective action plan for NMED approval within 30 days of the survey. The plan may include: constructing an additional synthetically lined lagoon; reducing the maximum daily discharge volume; changing waste management practices; installing an advanced treatment system; etc. [20.6.2.3107 NMAC]</p>
65.	<p>ENTRY Use if survey and capacity determination is required for existing evaporation</p>	<p>Note: placeholder for condition to be added</p>

	lagoon	
66.	ENTRY Use if survey and capacity determination is required for existing SW impoundments	In the event that the survey of the existing stormwater impoundment[s] and capacity calculations as required by this Discharge Permit indicate that the stormwater impoundment[s] [is OR are] not capable of [storing OR managing and disposing of], at a minimum, run-off and direct precipitation from a 25-year, 24-hour rainfall event at all times, the permittee shall submit a corrective action plan for NMED approval within 30 days of the survey. The plan may include: constructing an additional stormwater impoundment; changing stormwater management practices, etc. [20.6.2.3107 NMAC]
67.	ENTRY Use for all facilities with lagoons	In the event that a minimum of two feet of freeboard cannot be maintained in the [wastewater OR combination wastewater and stormwater] lagoon [system] at all times, the permittee shall submit a corrective action plan for NMED approval within 30 days of the date when the two feet of freeboard limit was initially exceeded. [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]
68.	Use if MW inspection condition included	<p>In the event that information available to NMED indicates that a well(s) is not appropriately constructed to effectively monitor ground water quality, contains insufficient water to allow the collection of representative ground water samples, or is not completed in a manner that is protective of ground water quality, the permittee shall install a replacement well(s) within 90 days of notification from NMED. The replacement well location(s) shall be approved by NMED prior to installation and completed in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.0, July 2008. Construction and lithologic logs shall be submitted to NMED within 60 days of well completion.</p> <p>Upon completion of the replacement monitoring well(s), the monitoring well(s) requiring replacement shall be properly plugged and abandoned. The well(s) shall be plugged and abandoned in accordance with the abandonment details in the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.0, July 2008, and any applicable local, state, and federal regulations. Documentation describing the plugging and abandonment procedures, including photographic documentation, shall be submitted to NMED within 60 days of completed well abandonment. [20.6.2.3107 NMAC]</p>
69.	Use if ground water monitoring is	In the event that information on the direction of ground water flow obtained pursuant to this Discharge Permit indicates that a monitoring well(s) is not located hydrologically downgradient of the discharge

	required	location(s) the well(s) is intended to monitor, the permittee shall propose a location(s) for a replacement monitoring well(s) within 30 days of notification from NMED. The permittee shall propose a replacement monitoring well location(s) that is anticipated to be hydrologically downgradient of the discharge location(s) to be monitored. The permittee shall install the replacement monitoring well(s) within 90 days of NMED approval of the proposed replacement monitoring well location(s). The replacement monitoring well(s) shall be completed in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i> , Revision 1.0, July 2008. Construction and lithologic logs shall be submitted to NMED within 60 days of well completion. [20.6.2.3107 NMAC]
70.	Use for all facilities with land application	In the event that LADS show that the amount of nitrogen applied to a field(s) within the land application area exceeds by more than 25% the amount reasonably expected to be taken up and removed by the harvested crop(s), the permittee shall submit to NMED for approval a corrective action plan for the reduction of nitrogen loading to the land application area within 30 days of the exceedance. The corrective action plan shall be implemented within 30 days of NMED approval. [20.6.2.3107.A(10) NMAC, 20.6.2.3109 NMAC]
71.	Use for all facilities with land application	<p>In the event NMED determines, upon review of analytical results from surface and sub-surface soil sampling, that nitrogen may be migrating vertically, the permittee shall, within 30 days of notification, submit for NMED approval a corrective action plan to reduce nitrogen concentrations in the soil. The plan shall include source control measures, such as a reduction in the amount of wastewater or solids applied to the land, expansion of the land application area, and/or changes in crop rotation.</p> <p>The permittee shall also implement the following deep soil sampling. From each field, the permittee shall collect composite soil samples at depths of 2, 4, 6, 8 and 10 feet from three separate soil cores. Composite samples for each depth shall be assembled from the three cores and analyzed for NO₃-N and TKN. Soil NO₃-N shall be analyzed by a 2 molar KCl extract, as described in <i>Methods of Soil Analysis: Part 2, Chemical and Microbiological Properties</i>, Agronomy Monograph no.9 (2nd edition), pp 643-698, American Society of Agronomy. The analytical results and a map showing the sampling locations within each field shall be submitted to NMED within 30 days of the sampling date. If initial deep soil sampling results indicate the presence of excessive nitrogen at depths below 36 inches, NMED may require deep soil sampling on an annual basis to verify success of the corrective actions. [20.6.2.3107.A(10) NMAC, 20.6.2.3109 NMAC]</p>

72.	Use for all facilities	In the event of a spill or release that is not authorized under this Discharge Permit, the permittee shall initiate the notifications and corrective actions as required in Section 20.6.2.1203 NMAC. The permittee shall take immediate corrective action to contain and remove or mitigate the damage caused by the discharge. Within 24 hours after discovery of the discharge, the permittee shall verbally notify NMED and provide the information required by Paragraph (1) of Subsection A of 20.6.2.1203 NMAC. Wastewater shall be contained, pumped and/or transferred to the concrete sump, lagoon and/or land application area as necessary. Failed components shall be repaired or replaced within 48 hours from the time of failure or as soon as possible. Within seven days of discovering the discharge, the permittee shall submit a written report to NMED verifying the oral notification and providing any additional information or changes. The permittee shall submit a corrective action report within 15 days after discovery of the discharge. [20.6.2.1203 NMAC]
73.	Use for all facilities	In the event NMED or the permittee identifies any other failures of the Discharge Permit or system not specifically noted herein, NMED may require the permittee to develop for NMED approval contingency plans and schedules to cope with the failures. [20.6.2.3107.A(10) NMAC]

CLOSURE PLAN

#	Usage	Terms and Conditions
74.	ENTRY Use for facilities needing to abandon MWs	<p>Within [90] days of the effective date of this Discharge Permit (by DATE), the permittee shall properly plug and abandon the [#] existing monitoring well[s]:</p> <ul style="list-style-type: none"> • MW-[#], located [describe location of MW]; • MW-[#], located [describe location of MW]; and • MW-[#], located [describe location of MW]. <p>The well[s] shall be plugged and abandoned in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.0, July 2008, and any applicable local, state, and federal regulations. Documentation describing the plug and abandonment procedures, including photographic documentation, shall be submitted to NMED within 180 days of the effective date of this Discharge Permit (by DATE). [20.6.2.3107 NMAC]</p>
75.	ENTRY Use for facilities	Within [one year] of the effective date of this Discharge Permit (by DATE), the permittee shall properly close the [#] old [clay-lined, manure-lined, or unlined] lagoon[s]. Manure solids shall be removed and the lagoon area[s]

	needing to close old lagoons	regraded to blend with surface topography and prevent ponding. The manure solids shall be disposed of in accordance with all local, state, and federal regulations. Documentation verifying complete closure of the lagoons, including photographic documentation, shall be submitted to NMED within 60 days of lagoon closure completion[s]. [20.6.2.3109 NMAC, 20.6.2.3107 NMAC]
76.	ENTRY Use for all facilities	<p>Upon closure of the facility, the permittee shall perform the following closure measures:</p> <ul style="list-style-type: none"> a) <i>[use if MWs required in permit:</i> Complete the installation of all monitoring wells as required by this Discharge Permit.] b) Remove all manure solids [and compost] from the facility and apply to the designated land application area or transfer offsite for proper disposal. c) Empty lagoons and impoundments of all wastewater and manure solids. d) Perforate or remove the lagoon liner(s) and re-grade the lagoon(s) with clean fill to blend with surface topography and prevent ponding. e) Perforate or remove the stormwater impoundment liner(s) and re-grade the impoundment(s) with clean fill to blend with surface topography and prevent ponding. f) Continue ground water monitoring as required by this Discharge Permit for two years after closure to confirm the absence of ground water contamination. If monitoring results show that the ground water standards in Section 20.6.2.3103 NMAC are being violated, the permittee shall implement the contingency plan required by this Discharge Permit. g) Following notification from NMED that post-closure monitoring may cease, the permittee shall plug and abandon the monitoring well(s) in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions</i>, Revision 1.0, July 2008. <p>When all post-closure requirements have been met, the permittee may request to terminate the Discharge Permit. [20.6.2.3107.A(11) NMAC]</p>

GENERAL TERMS AND CONDITIONS

#	Usage	Terms and Conditions
77.	All DPs	<p>RECORD KEEPING - The permittee shall maintain at its facility a written record of all data and information related to field measurements, sampling, and analysis conducted pursuant to this Discharge Permit. The following information shall be recorded and shall be made available to NMED upon request:</p>

		<ul style="list-style-type: none"> a) The dates, exact place and times of sampling or field measurements; b) The name and job title of the individuals who performed each sample collection or field measurement; c) The date of the analysis of each sample; d) The name and address of the laboratory and the name and job title of the person that performed the analysis of each sample; e) The analytical technique or method used to analyze each sample or take each field measurement; f) The results of each analysis or field measurement, including raw data; g) The results of any split sampling, spikes or repeat sampling; and h) A description of the quality assurance and quality control procedures used. <p>[20.6.2.3107.A NMAC]</p>
78.	All DPs	<p>RECORD KEEPING - The permittee shall maintain a written record of any spills, seeps, and/or leaks of effluent, and of leachate and/or process fluids not authorized by this Discharge Permit. [20.6.2.3107.A NMAC]</p>
79.	All DPs	<p>RECORD KEEPING - The permittee shall maintain a written record of the operation, maintenance, and repair of all facilities/equipment used to treat, store or dispose of wastewater; to measure flow rates, to monitor water quality, or to collect other data required by this Discharge Permit. This record shall include repair, replacement or calibration of any monitoring equipment and repair or replacement of any equipment used in the permittee's waste or wastewater treatment and disposal system. [20.6.2.3107.A NMAC]</p>
80.	All DPs	<p>RECORD KEEPING - The permittee shall maintain a written record of the amount of wastewater, effluent, leachate or other wastes discharged pursuant to this Discharge Permit. [20.6.2.3107.A NMAC]</p>
81.	All DPs	<p>RECORD KEEPING - The permittee shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this Discharge Permit, and records of all data used to complete the application for this Discharge Permit for a period of at least five years from the date of the sample collection, measurement, report or application. This period may be extended by request of the Secretary at any time. [20.6.2.3107.A NMAC]</p>
82.	All DPs	<p>INSPECTION and ENTRY - The permittee shall allow the Secretary or an authorized representative, upon the presentation of credentials, to:</p> <ul style="list-style-type: none"> a) Enter at regular business hours or at other reasonable times upon the permittee's premises or other location where records must be kept under the conditions of this Discharge Permit, or under any federal or WQCC regulation.

		<p>b) Inspect and copy, during regular business hours or at other reasonable times, any records required to be kept under the conditions of this Discharge Permit, or under any federal or WQCC regulation.</p> <p>c) Inspect, at regular business hours or at other reasonable times, any facility, equipment (including monitoring and control equipment or treatment works), practices or operations regulated or required under this Discharge Permit, or under any federal or WQCC regulation.</p> <p>d) Sample or monitor, at reasonable times for the purpose of assuring compliance with this Discharge Permit or as otherwise authorized by the WQA, any effluent, water contaminant, or receiving water at any location before or after discharge.</p> <p>[20.6.2.3107.D NMAC, 74-6-9(B) & (E) WQA]</p>
83.	All DPs	<p>INSPECTION and ENTRY - Nothing in this Discharge Permit shall be construed as limiting in any way the inspection and entry authority of NMED under the WQA, the WQCC Regulations, or any other applicable law or regulation. [20.6.2.3107 NMAC, 74-6-9(B) & (E) WQA]</p>
84.	All DPs	<p>DUTY to PROVIDE INFORMATION - The permittee shall furnish to NMED, within a reasonable time, any documents or other information which it may request to determine whether cause exists for modifying, terminating and/or renewing this Discharge Permit or to determine compliance with this Discharge Permit. The permittee shall also furnish to NMED, upon request, copies of documents required to be kept by this Discharge Permit. [20.6.2.3107.D NMAC, 74-6-9(B) & (E) WQA]</p>
85.	All DPs	<p>SPILLS, LEAKS, and OTHER UNAUTHORIZED DISCHARGES - This Discharge Permit authorizes only those discharges specified herein. Any unauthorized discharges violate Section 20.6.2.3104 NMAC and must be reported to NMED and remediated as required by Section 20.6.2.1203 NMAC. [20.6.2.1203 NMAC]</p>
86.	All DPs	<p>MODIFICATIONS and/or AMENDMENTS - The permittee shall notify NMED of any changes to the permittee's wastewater treatment and disposal system, including any changes in the wastewater flow rate or the volume of wastewater storage, or of any other changes to operations or processes that would result in any significant change in the discharge of water contaminants. The permittee shall obtain NMED's approval, as a modification to this Discharge Permit pursuant to Subsections E, F, or G of 20.6.2.3109 NMAC, prior to any increase in the quantity discharged, or any increase in the concentration of water contaminants discharged, above those levels approved in this Discharge Permit. [20.6.2.3107.C NMAC]</p>
87.	All DPs	<p>PLANS and SPECIFICATIONS - The permittee shall file plans and specifications with NMED for the construction of a wastewater system and</p>

		for proposed changes that will change substantially the quantity or quality of the discharge from the system. The permittee shall file plans and specifications prior to the commencement of construction. Changes to the wastewater system having a minor effect on the character of the discharge shall be reported as of January 1 and June 30 of each year to NMED. [20.6.2.1202 NMAC]
88.	All DPs	<p>CIVIL PENALTIES - Any violation of the requirements and conditions of this Discharge Permit, including any failure to allow NMED staff to enter and inspect records or facilities, or any refusal or failure to provide NMED with records or information, may subject the permittee to a civil enforcement action. Pursuant to WQA 74-6-10(A) and (B), such action may include a compliance order requiring compliance immediately or in a specified time, assessing a civil penalty, modifying or terminating the Discharge Permit, or any combination of the foregoing; or an action in district court seeking injunctive relief, civil penalties, or both. Pursuant to WQA 74-6-10(C) and 74-6-10.1, civil penalties of up to \$15,000 per day of noncompliance may be assessed for each violation of the WQA 74-6-5, the WQCC Regulations, or this Discharge Permit, and civil penalties of up to \$10,000 per day of noncompliance may be assessed for each violation of any other provision of the WQA, or any regulation, standard, or order adopted pursuant to such other provision. In any action to enforce this Discharge Permit, the permittee waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. [74-6-10 WQA, 74-6-10.1 WQA]</p>
89.	All DPs	<p>CRIMINAL PENALTIES - Any person who knowingly violates or knowingly causes or allows another person to:</p> <ol style="list-style-type: none"> 1) make any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or required to be maintained under the WQA; 2) falsify, tamper with or render inaccurate any monitoring device, method or record required to be maintained under the WQA; or 3) fail to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation, is subject to felony charges and shall be sentenced in accordance with the provisions of Section 31-18-15 NMSA 1978. <p>[74-6-10.2(A-F) WQA]</p>
90.	All DPs	<p>COMPLIANCE WITH OTHER LAWS - Nothing in this Discharge Permit shall be construed in any way as relieving the permittee of the obligation to comply with all applicable federal, state, and local laws, regulations, permits or orders. [20.6.2 NMAC]</p>
91.	All DPs	<p>RIGHT to APPEAL - The permittee may file a petition for review before</p>

Facility Name, **DP-#**

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		the WQCC on this Discharge Permit. Such petition shall be in writing to the WQCC within thirty (30) days of the receipt of this Discharge Permit. Unless a timely petition for review is made, the decision of NMED shall be final and not subject to judicial review. [74-6-5(O) WQA]
92.	All DPs	TRANSFER of DISCHARGE PERMIT - Prior to the transfer of any ownership, control, or possession of this permitted facility or any portion thereof, the permittee shall notify the proposed transferee in writing of the existence of this Discharge Permit and include a copy of this Discharge Permit with the notice. The permittee shall deliver or send by certified mail to NMED a copy of the notification and proof that such notification has been received by the proposed transferee. [20.6.2.3111 NMAC]
93.	ENTRY All DPs	TERM - Pursuant to the WQA 74-6-5(I) and Subsection H of 20.6.2.3109 NMAC, the term of this Discharge Permit is [five years from its effective date] or [seven years from its effective date or five years from the date the discharge commences, whichever occurs first.] To renew this Discharge Permit, the permittee must submit an application for renewal at least 180 days before the termination date. [20.6.2.3109.H NMAC, 74-6-5(I) WQA]
94.	All DPs	Payment of permit fees is due at the time of Discharge Permit approval. Permit fees shall be paid in a single payment or shall be paid in equal installments on a yearly basis over the term of the Discharge Permit. Single payments shall be remitted to NMED no later than 30 days after the Discharge Permit effective date. Initial installment payments shall be remitted to NMED no later than 30 days after the Discharge Permit effective date; subsequent installment payments shall be remitted to NMED no later than the anniversary of the Discharge Permit effective date. An approved Discharge Permit shall be suspended or terminated if the facility fails to remit an installment payment by its due date. [20.6.2.3114.F NMAC, 74-6-5(K) WQA]

EFFECTIVE DATE: effective date

EXPIRATION DATE: expiration date

WILLIAM C. OLSON

Chief, Ground Water Quality Bureau

New Mexico Environment Department